

Claims

- [c1] 1. A patterning apparatus comprising:
a stage on which a substrate is loaded;
a coating means for coating a liquid, which reacts with
an ultraviolet ray to deposit metal, on the substrate; and
an ultraviolet irradiating means for irradiating the ultra-
violet ray onto the liquid that is coated on the substrate.
- [c2] 2. A patterning apparatus according to claim 1, wherein
the liquid is a liquid in which a metal complex is dis-
solved in a solvent.
- [c3] 3. A patterning apparatus according to claim 1, wherein
the coating means coats the liquid by ejecting the liquid
by means of a bubble jet system.
- [c4] 4. A patterning apparatus according to claim 1, wherein
the coating means coats the liquid by ejecting the liquid
by means of a piezo driving system utilizing a piezore-
sistance effect.
- [c5] 5. A patterning apparatus according to claim 1, wherein
a heating means for heating the substrate is provided to
the stage.

- [c6] 6. A patterning apparatus according to claim 1, wherein a wavelength of the ultraviolet ray is 100 to 300 nm.
- [c7] 7. A patterning method comprising the steps of:
coating a liquid, which reacts with an ultraviolet ray to deposit metal, on a substrate; and
forming a metal film pattern by irradiating the ultraviolet ray onto the liquid while coating the liquid on the substrate or after the liquid is coated, to deposit the metal on the substrate.
- [c8] 8. A patterning method according to claim 7, wherein the liquid is a liquid in which a metal complex is dissolved in a solvent.
- [c9] 9. A patterning method according to claim 8, wherein the metal complex is any one of gold complex, copper complex, palladium complex, and nickel complex.
- [c10] 10. A patterning method according to claim 8, wherein the metal complex includes gold cyanide.
- [c11] 11. A patterning method according to claim 7, wherein the step of forming the metal film pattern is executed in a state that the substrate is heated.
- [c12] 12. A patterning method according to claim 7, wherein a film thickness of the metal film pattern is controlled by

adjusting a radiation dose of the ultraviolet ray in the step of forming the metal film pattern.

- [c13] 13. A patterning method according to claim 7, wherein the step of coating the liquid on the substrate is executed by an ink jet method.